

**ABSTRACT OF THE DISCLOSURE**

The present invention relates to a storage device controller for controlling the operations of the data storage system. The controller includes error-correcting code (ECC) coding and decoding of data stored on media of the data storage system. A

- 5 Verify procedure of the present invention is performed which verifies the validity of the data written to the media. The Verify procedure runs continuously until an error is detected or until an external event terminates the procedure. By accessing a range of memory addresses in the media and by resetting an address counter to a start of the range of addresses after a last address of the range has been accessed, the Verify
- 10 procedure continuously checks the memory locations for errors. The range of addresses may include all of the accessible addresses in the data storage device. Additionally, information on the quality of the media may be collected and used to determine how much the media deteriorates over time. Sparing of defective memory locations may also be provided, even after manufacturing and packaging of the data
- 15 storage system.